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MATHEMATICAL METHODS IN ECONOMICS

The penetration of mathematics into economy can be observed from the ancient times. So, when studying the laws of king Hammurabi (1792-1790 to B. C.) we can make a conclusion about the considerable development of commodity-money relations in Babylonia. Xenophon (430-354, to B. C.) in his treatises “About the household” and “About the income” introduces the concept of exchange value of goods as the possibility to exchange one product for another. In Aristotle (384-322 B. C.) treatise “Policy” money is the measure of importance of item in the process of exchange. So, in ancient times with the development of commodity-money relations in economy appears such a phenomenon as the measure of quality. It can be characterized as the application of arithmetic in the economy. [3]

The development of the application of mathematical methods in economics marked the twentieth century. The use of them is associated with the works of almost all Nobels prize laureates: D. Hicks, G. Solow, V. Leont'ev, P. Samuelsson.

The methods of elementary mathematics, classical mathematical methods of analysis, statistical methods, economic methods, methods of mathematical programming are widely used in economics. [1]

They all speed up the transactions execution in the economy, taking into account the influence of various factors and performance, improve the accuracy of calculations. [2]

Mathematical-economic methods are widely used in the field of management and maintenance, in agriculture, in a market economy (model of Virosa, model of Evans), and others.

So, mathematics complements the economy. And mathematical methods make the use of economics more convenient and wider.

LITERATURE

1. Бідник Н.Б. Використання математичних методів і моделей в економіці, фінансах / Н.Б. Бідник // Науковий вісник НЛТУ України. – 2008. – № 18.6. – С. 258-262.
2. Грабовецький Б.Є. Економічне прогнозування і планування: Навч. посібник. – К.: Центр навчальної літератури, 2003. – 188с.
3. Машина Н.І. Математичні методи в економіці: Навч. посіб. – К.: Центр навчальної літератури, 2003. – 148с.

